

SUPPORT FOR THE AMENDMENT

Support for the amendments to claims 1 and 6 is found on page 6, lines 2-9 of the specification. Support for claim 7 is found on page 8, lines 9-18 of the specification. Support for claim 8 is found on page 3, lines 16-24 of the specification. Support for claim 9 is found on page 6, lines 2-9 of the specification. Support for claims 10-11 is found on page 6, lines 10-16 of the specification. Support for claim 12 is found on page 8, lines 9-18 of the specification. No new matter would be added to this application by entry of this amendment.

Upon entry of this amendment, claims 1-4 and 6-12 will now be active in this application with claims 1-4 and 7-12 being under active consideration.

REQUEST FOR RECONSIDERATION

The claimed invention is directed to a deodorant agent comprising ginkgo extract or a *Phellodendron Bark* extract with 80 v/v% or higher aqueous ethanol.

Body odor suppression has been the target of many consumer products in the United States. One specific source of axillary body odor has been attributed to bacterial decomposition of apolipoprotein D, secreted by the apocrine glands. Techniques for odor control based on sweat suppression, bacterial inhibition and scent masking have not provided entirely satisfactory results such that agents for suppressing axillary odor are sought.

The claimed invention addresses this problem by providing a deodorant composition comprising ginkgo extract or *Phellodendron Bark* extract with 80 v/v% or higher of aqueous ethanol. Applicants have discovered that such extracts are highly effective at inhibiting papain activity, and thus prevent the occurrence of an apocrine odor, consider a causative substance of human body odor. Neither aqueous ethanol extracts as claimed nor enhanced papain activity suppression are disclosed or suggested by the cited references.

The rejections of claim 1-5 under 35 U.S.C. § 102(b) over Han U.S. 5,244,662, over Haga U.S. 5,344,648, over CN 1206740 and over CN 1253770 are respectfully traversed.

None of the cited references disclose or suggest an aqueous ethanol extract as claimed or enhanced papain inhibition resulting therefrom.

Han describes an immune system disorder treatment prepared from a bark extract from an organic solvent such as an aliphatic or aromatic alcohol, a halogenated hydrocarbon having 1-6 halogen atoms or a carboxylic ester having a lower alkyl group. Preferably chloroform or a **mixture** of chloroform with ethanol is used followed by filtration, hot water extraction, concentration and removal of precipitates (column 1, lines 32-39 and column 4, lines 4-20). Extraction with 80 v/v% aqueous ethanol or higher is not disclosed or suggested.

Haga et al. describes a central nervous system activator prepared from a plant of *Rutaceae* which can be an extract of a lower alkane insoluble portion thereof, a lower fatty acid ester extract of the lower alkane insoluble portion, a lower fatty acid ester/halogenated lower alkane soluble portion of the lower fatty acid ester extract, a limonin fraction of the lower fatty acid ester/halogenated lower alkane soluble portion and an obacunone fraction of the lower fatty acid ester/halogenated lower alkane soluble portion (column 1, lines 34-45). Extraction with 80 v/v% aqueous ethanol or higher is not disclosed or suggested.

The cited abstract of CN '740 merely describes a medicinal soap comprising soap flakes, glycerine, calamine, coptis root, borneol, sulfur, and phellodendron bark (see abstract). Extraction with 80 v/v% aqueous ethanol or higher is not disclosed or suggested.

The cited abstract of CN '770 describes a composition for foot odor prepared by mixing tea, phellodendron amurense bark, calcined fossil fragments, alum, flower of Japanese pagoda tree, nut gall, common turmeric, lysimachia foenum-graecum in water followed by concentrating. Extraction with 80 v/v% aqueous ethanol or higher is not disclosed or suggested.

In contrast, the claimed invention is directed to a deodorant agent comprising an extract of ginkgo or *Phellodendron Bark* with 80 v/v% aqueous ethanol or higher. Applicants note that the claims have been amended to recite an extract with 80 v/v% aqueous ethanol or higher. Applicants have discovered that an extract with 80 v/v% aqueous ethanol or higher to provide enhanced papain inhibition relative to a water extract or a 50 v/v% extract.

As evidence of the enhanced papain inhibition from an extract of 80 v/v% or higher of aqueous ethanol, applicants have conducted additional experiments, presented in the attached declaration of Mr. Shunichi Akiba, a named inventor of the above-identified application, as follows:

Extracts of *Ginkgo biloba L.* and *Phellodendron amurense Ruprecht* were each prepared with purified water (extract A), 50 v/v% aqueous ethanol solution (extract B) and 95 v/v% aqueous ethanol solution (extract C). The extracts were tested for relative papain inhibition activity. The results are summarized as follows:

Plant Extract	Relative papain inhibitory activity (%)	
	Concentration of extract (5%)	Concentration of extract (10%)
Ginkgo Extract A	0	Not determined
Ginkgo Extract B	19.0	Not determined
Ginkgo Extract C	67.0	100
Commercially available Ginkgo Extract (produced by Mauruzen Pharmaceutical Col, Ltd)	14.4	47.7
Phellodendron Extract A	33.0	Not determined
Phellodendron Extract B	44.9	26.8
Phellodendron Extract C	62.3	87.3
Commercially available Phellodendron (Produced by Ichimaru Pharcos Co., Ltd.)	17.4	43.1

The data demonstrates that the 50 v/v% extract of ginkgo and phellodendron to provide only 19.0% and 44.9 % relative papain inhibition at a concentration of extract of 5%. In contrast, the 95v/v% extracts provided 67.0% and 62.3% relative inhibition. Thus, the

95v/v% extracts were demonstrated to be superior to the 50 v/v% extracts at inhibiting papain activity. The 95 v/v% were also demonstrated to not be lower than the 50 v/v% extracts at 10% concentration. As none of the cited references disclose or suggest an aqueous ethanol extract, there can be no suggestion of an enhanced papain inhibitory activity from an extract of 80 v/v% or higher aqueous ethanol. In view of the deficiency of the cited references to disclose an enhanced papain inhibitory effect for an aqueous ethanol extract as claimed, the claimed invention is neither anticipated nor rendered obvious by the cited references and withdrawal of the rejections under 35 U.S.C. §102(b) is respectfully requested.

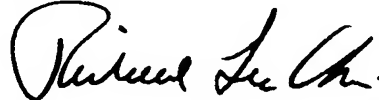
The rejections of claim 5 under 35 U.S.C § 101 and 35 U.S.C. § 112 second paragraph are believed to be moot as claim 5 has been canceled without prejudice. The examiner is invited to consider new claim 7 which reflects the subject matter of previous claim 5 but provides an active step of "adding."

The objection to the abstract of the disclosure has been obviated by rewriting the abstract as a single paragraph.

Applicants submit that this application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

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